

## Johnstone, Jeremy

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**From:** Ron Quesada <rquesada@ORMAT.COM>  
**Sent:** Monday, October 28, 2013 4:20 PM  
**To:** Johnstone, Jeremy  
**Cc:** Cliff Townsend  
**Subject:** RE: Follow-up to EPA inspection of 8/20-21/13  
**Attachments:** PGV\_pentane\_storage\_tank\_capacity.pdf; PGV\_STATE\_UIC.PDF; PGV\_FED\_UIC.PDF

Jeremy

I apologize for a late response to your questions.

My answers are in red.

First, can you please resend the maximum inventory list for all vessels on-site as an attachment? For some reason our email system appears to have stripped out the image contained in your email. **Attached**

Second, can you please confirm that the pentane storage tanks at the original and expansion plants are not interconnected? My notes are unclear on that but the pentane transfer procedures documents that you provided appear to indicate this to be the case. And assuming so can you please explain why PGV is considering its pentane in aggregate as a single process vs. two (one at each plant)? **The storage tanks are not connected, but future construction will include this connection. This connection will enhance our transfer capabilities if needed.**

Third, re [REDACTED]

Follow-up question re: the Casing Monitoring Program attached to your previous reply. IS PGV still implementing this, particularly with respect to the production well side (sections 2.4 & 2.5)? I ask as this document is dated 1991, also the UIC permit that it was developed under (UH-1529) has been superceded by the UIC permits issued since by EPA Region 9. Also, App D to the most recent (2009) re-issuance of UIC Permit No. HI596002 indicates that PGV's original 1991 CMP was amended in 4/93. Can you please clarify PGV's current program for ensuring casing & mechanical integrity of its production wells? **The most current issued date of Fed (HI596002) UIC permit is 4/11/2006, our Mechanical Integrity Program (MIT) section D has not changed since the initial permit was issued. Since this section of the permit has not changed, this is what we use.**

I hope I have answered all your questions clearly, please let me know if I can assist you further.

Thanks

**Ronald P. Quesada**  
Safety and Environmental Coordinator  
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***Mahalo!***

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**From:** Johnstone, Jeremy [mailto:Johnstone.Jeremy@epa.gov]

**Sent:** Wednesday, October 23, 2013 12:41 PM

**To:** Ron Quesada

**Subject:** RE: Follow-up to EPA innpection of 8/20-21/13

Ron –

Follow-up question re: the Casing Monitoring Program attached to your previous reply. IS PGV still implementing this, particularly with respect to the production well side (sections 2.4 & 2.5)? I ask as this document is dated 1991, also the UIC permit that it was developed under (UH-1529) has been superceded by the UIC permits issued since by EPA Region 9. Also, App D to the most recent (2009) re-issuance of UIC Permit No. HI596002 indicates that PGV's original 1991 CMP was amended in 4/93. Can you please clarify PGV's current program for ensuring casing & mechanical integrity of its production wells?

Thanks,

Jeremy

---

Jeremy Johnstone

Environmental Engineer

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**From:** Ron Quesada [mailto:[rquesada@ORMAT.COM](mailto:rquesada@ORMAT.COM)]

**Sent:** Tuesday, September 10, 2013 2:58 PM

**To:** Johnstone, Jeremy

**Cc:** Cliff Townsend; Bodine, Diane C.; Will Osborn

**Subject:** RE: Follow-up to EPA innpection of 8/20-21/13

Jeremy,

One follow-on question, re: reading Work Orders – can you please educate me on the meaning of the following:

Origination Date: Work order (preventative, scheduled or corrective) submittal date.

Due Date: Work order due date depends on priority to complete.

Completion Date: Work order date completed.

Exception Date: Preventative maintenance work orders may be extended to an exception date.

Schedule Date: Preventative maintenance WO's default to a completion date. Scheduled and corrective maintenance depends on priority to complete.

SC Date: Scheduled completion date of the work order.

Entry Date: Date of entry, comments and or input by assigned employee.

1. Re: "Day 1 submittals" – missing info relating to 6/10 compliance audit. Please send both a copy of the recommendations summary from the report as well as tracking system output showing status of recommended actions.

Attached

2. Re: "Day 2 submittals" – missing info relating to the following requested items:

- Cardno Tec QAPP Air Quality Monitoring Program document;

Attached

- BD Neal & Assocs. August 2013 Air Quality Monitoring Station Audit Report; and

Attached

- Jerome handheld H2S meter mfr's specifications/recommendations re: calibrations, also documentation of calibrations (work orders) performed CY 2012 to date.

Attached

Please provide.

3. With respect to Day 2's activities, there is an additional area that I need to explore. [REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED]

Please provide copies of completed work orders (or equivalent records) documenting compliance with the ITPM program in this regard since 1/2009.

Attached: Casing Monitoring Program

Attached: Typical completed work orders for production well

Attached: Typical work order (preventative, corrective) history for production well.

4. With regard to copies of completed work orders that we took with us at the conclusion of our on-site activities - as helpful as the work order printouts are they do not, in all cases, document the results of the relevant inspections/tests. See e.g. Work Order #s P809806, P808497, P822083, P809030, P832034, P830931. Are there supporting records that would provide this information? 40 CFR §68.73(d)(4) requires, among other things, that facilities document the results of the inspection or test.

I am having difficulty locating these requested work orders, this work orders are from 10+ years ago. Our CMMS program has gone through quite a bit of iteration and responsibility to maintain and record corrective actions. I have attached copies of our most current inspections and testing documentation.

5. Please provide an explanation for the [REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]


Please let me know if you have any further request.  
Thanks

**Ronald P. Quesada**  
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**Mahalo!**

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**From:** Johnstone, Jeremy [<mailto:Johnstone.Jeremy@epa.gov>]

**Sent:** Tuesday, September 03, 2013 1:21 PM

**To:** Ron Quesada

**Cc:** Cliff Townsend; Bodine, Diane C.; Will Osborn

**Subject:** Follow-up to EPA inspection of 8/20-21/13

Ron –

Thank you for the documents submitted on 8/27. I do have some follow-up questions/requests –

1. Re: “Day 1 submittals” – missing info relating to 6/10 compliance audit. Please send both a copy of the recommendations summary from the report as well as tracking system output showing status of recommended actions.
2. Re: “Day 2 submittals” – missing info relating to the following requested items:
  - Cardno Tec QAPP Air Quality Monitoring Program document;
  - BD Neal & Assocs. August 2013 Air Quality Monitoring Station Audit Report; and
  - Jerome handheld H2S meter mfr’s specifications/recommendations re: calibrations, also documentation of calibrations (work orders) performed CY 2012 to date.

Please provide.

3. With respect to Day 2’s activities, there is an additional area that I need to explore. Review of PGV ERP App H indicates that the potential worst case scenario with respect to a release of hydrogen sulfide would appear to be an “unabated horizontal flow through the well 13-3/8” flow line” (Scenario #3). Please describe the ITPM activities that PGV performs on its production wells to prevent such a release. Please provide copies of completed work orders (or equivalent records) documenting compliance with the ITPM program in this regard since 1/2009.

4. With regard to copies of completed work orders that we took with us at the conclusion of our on-site activities - as helpful as the work order printouts are they do not, in all cases, document the results of the relevant inspections/tests. See e.g. Work Order #s P809806, P808497, P822083, P809030, P832034, P830931. Are there supporting records that would provide this information? 40 CFR §68.73(d)(4) requires, among other things, that facilities document the results of the inspection or test.
5. Please provide an explanation for the update to the Hazard Assessment Worst Case Scenario ("WCS" - in terms of release amount, distance to endpoint and affected population) in the 11/17/10 RMP submittal relative to those contained in the submittals from 7/7/09 and earlier.

Thanks in advance for your continued cooperation, please let me know if you have any questions about any of the above.

Regards,  
Jeremy

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Jeremy Johnstone  
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**From:** Ron Quesada [<mailto:rquesada@ORMAT.COM>]

**Sent:** Tuesday, August 27, 2013 1:12 PM

**To:** Johnstone, Jeremy

**Cc:** Cliff Townsend; Michael L. Kaleikini; Bodine, Diane C.; Helmlinger, Andrew; Sheila D. Jones ([sdjones@hollandhart.com](mailto:sdjones@hollandhart.com))

**Subject:** RE: Notice of U.S. EPA Inspection of Puna Geothermal Venture facility beginning on Tuesday 20 August 2013 beginning at 8:30 am

Jeremy,

Day 2 requested documentation.

Please contact me if you have any further request.

Thank You

**Ronald P. Quesada**

Safety and Environmental Coordinator

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**Mahalo!**

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**From:** Johnstone, Jeremy [<mailto:Johnstone.Jeremy@epa.gov>]

**Sent:** Tuesday, August 13, 2013 8:24 AM

**To:** Ron Quesada

**Cc:** Cliff Townsend; Michael L. Kaleikini; Bodine, Diane C.; Helmlinger, Andrew; Sheila D. Jones ([sdjones@hollandhart.com](mailto:sdjones@hollandhart.com))

**Subject:** RE: Notice of U.S. EPA Inspection of Puna Geothermal Venture facility beginning on Tuesday 20 August 2013 beginning at 8:30 am

Hi Ron –

Yes, I received your message. My understanding is that Andrew Helmlinger and Sheila Jones are in dialog about Ormat's concern. We remain hopeful that the matter will be clarified/resolved to Ormat's satisfaction.

Jeremy

---

**From:** Ron Quesada [<mailto:rquesada@ORMAT.COM>]

**Sent:** Tuesday, August 13, 2013 11:20 AM

**To:** Johnstone, Jeremy

**Cc:** Cliff Townsend; Michael L. Kaleikini; Bodine, Diane C.; Helmlinger, Andrew; Sheila D. Jones ([sdjones@hollandhart.com](mailto:sdjones@hollandhart.com))

**Subject:** RE: Notice of U.S. EPA Inspection of Puna Geothermal Venture facility beginning on Tuesday 20 August 2013 beginning at 8:30 am

Mr. Johnstone,

Do you have any comments to the email I sent you on August 9<sup>th</sup> 2013? Can you please send me an acknowledgement that the email was received?

Thank you

**Ronald P. Quesada**

Safety and Environmental Coordinator

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***Mahalo!***

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**From:** Johnstone, Jeremy [<mailto:Johnstone.Jeremy@epa.gov>]

**Sent:** Tuesday, August 06, 2013 2:24 PM

**To:** Ron Quesada

**Cc:** Cliff Townsend; Michael L. Kaleikini; Bodine, Diane C.; Helmlinger, Andrew

**Subject:** Notice of U.S. EPA Inspection of Puna Geothermal Venture facility beginning on Tuesday 20 August 2013 beginning at 8:30 am

Dear Mr. Ron Quesada -

In follow-up to our telephone conversation earlier today, this is to advise you of a planned visit to and inspection of the Puna Geothermal Venture facility located at 14-3860 Kapoho-Pahoa Road in Pahoa, HI beginning on Tuesday 20 August 2013 at 8:30 am.

The inspection is an element of our ongoing compliance evaluation of industrial facilities that are subject to the Clean Air Act of 1990 as amended, Section 112(r) regarding the Risk Management Program, and General Duty Clause, and the requirements of the Emergency Planning and Community Right-to-Know Act of 1986, EPCRA, Sections 302-312 and the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) Section 103. The principal focus of the inspection will be the compliance of the facility and its pentane and hydrogen sulfide abatement systems with these requirements.

We estimate that the inspection should take two consecutive days over approximately eight hours each day. On the first day we will focus on the facility's covered pentane process and compliance with the Risk Management Program requirements of CAA §112(r)(7) and 40 CFR Part 68. The second day's activities will be primarily dedicated to an evaluation of the facility's compliance with the General Duty Clause of CAA Section 112(r)(1) with respect to the facility's hydrogen sulfide abatement, emergency shutdown, and emergency steam relief systems. I acknowledge that in our earlier discussion you informed me that the facility would be in shutdown mode, we would not be viewing it in normal operating conditions, and that you and others with whom we may need to interact may be periodically unavailable. The inspection team will tentatively include Jeremy Johnstone from the US EPA Region IX Emergency Response, Prevention and Preparedness Branch with support from Science Application International Corporation (SAIC), a contractor to US EPA Region 9. Staff from the Hawaii County Fire Department may also participate under their own authority.

Attached is a list of records and documents that we typically review. We understand that some of the items may not apply to your facility or may not be immediately available. To avoid delays, we recommend that the documents be available on site, or if you would prefer, you can send some of those documents to our office for advance review. Please make notation of documents that you do not hold at this time or cannot be located. On the day of the inspection please make the documents available for review in a conference room or large office that can also serve as the location for interviews and discussion. As a further acknowledgement, in response to our Information Request of June 20<sup>th</sup>, you provided us with the documents that we had requested with respect to the facility's hydrogen sulfide abatement, emergency shutdown, and emergency steam relief systems. In addition to what is requested in the attachment to this email please also have these documents (to the extent that they are not duplicative of what is requested in the attachment) available for us during our inspection.

Finally, CAA Section 112(r)(6)(L) provides facility employees and employee representatives with the same rights to participate in the physical inspection of any workplace conducted pursuant to CAA Section 112(r) as provided in the Occupational Safety and Health (OSH) Act (29 CFR 1903.8). Therefore, this is to request that you notify your facility's employee representative(s) of this inspection and make arrangement for their participation in the inspection. In the event that your facility is non-union, then please notify and invite an employee, or employees, familiar with the operation of the processes regulated under Clean Air Act Section 112(r), to similarly participate. Please also provide a copy of this Notice of Inspection to the employee representative(s) and also post a copy in the area subject to the inspection.

Please confirm receipt of this email and acknowledgement of the planned inspection either via telephone or e-mail, and please also let us know what personal protective equipment (PPE) will be required to go out into the facility. Please also feel free to contact me if you have any questions or comments regarding our visit.

Thank you in advance for your cooperation in this matter.

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Thank you.

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